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PATENT TRADEMARK OFFICE

PATENT

Docket No.: 4024-4008

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE****Applicant(s):** John Trezza**Serial No.:** 09/896,797**Group Art Unit:** 2872**Filing Date:** June 29, 2001**Examiner:** To Be Assigned**Title:** REDUNDANT OPTICAL DEVICE ARRAY

SEP 30 2002

**CERTIFICATE OF MAILING (37 C.F.R. §1.8a)**

Technology Center 2600

Commissioner of Patents  
Washington, D.C. 20231

Dear Sir:

I hereby certify that the attached:

1. Information Disclosure Statement;
2. PTO Form 1449;
3. Copy of thirty six (36) references cited in PTO Form 1449; and
4. Return postcard.

(along with any paper(s) referred to as being attached or enclosed) and this Certificate of Mailing are being deposited with the United States Postal Service on the date shown below with sufficient postage as first-class mail in an envelope addressed to the: Commissioner of Patents, Washington, DC 20231.

Respectfully submitted,

**MORGAN & FINNEGAN, L.L.P.**

Date: September 18, 2002

By: Richard Straussman  
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Docket No. 4024-4008

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicant(s):** John Trezza

**Serial No.:** 09/896,797

**Group Art** 2872

**Filed:** June 29, 2001

**Examiner:** To Be Assigned

**For:** REDUNDANT OPTICAL DEVICE ARRAY

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**INFORMATION DISCLOSURE STATEMENT**

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Commissioner for Patents  
Washington, D.C. 20231

SEP 30 2002

Technology Center 2600

Sir:

This Information Disclosure Statement is filed in accordance with 37 C.F.R. §§1.56, 1.97 and 1.98. The items listed on Form PTO-1449, a copy of which is enclosed, are made of record to assist the Patent and Trademark Office in its examination of this application. The Examiner is respectfully requested to fully consider the items and to independently ascertain their teaching.

1. ☐ For each of the following items listed on the enclosed copy of Form PTO-1449 that is not in the English language, an English language translation of that item or a portion thereof or a concise explanation of the relevance of that item is enclosed:  

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2. ☐ For each of the items listed on the enclosed copy of Form PTO-1449 that is not in the English language, a concise explanation of the relevance of that item is incorporated in the specification of the above-identified application.
3. ☐ All items listed on the enclosed copy of Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in application Serial No. \_\_\_\_\_, filed \_\_\_\_\_ to which the present application claims the benefit of priority under 35 U.S.C. §120.


4. ☒ **No fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in compliance with:**
- ☐ 37 C.F.R. §1.97(b)(1), within three months of the filing date of a national application other than a CPA; or
  - ☐ 37 C.F.R. §1.97(b)(2), within three months of the date of entry into the national stage as set forth in §1.491 in an international application; or
  - ☒ **37 C.F.R. §1.97(b)(3), before the mailing date of a first Office action on the merits; or**
  - ☐ 37 C.F.R. §1.97(b)(4) before the mailing date of a first Office Action after the filing of an RCE under §1.114.
5. ☐ No fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. §1.97(c), after the period specified in paragraph 4 above but before the mailing date of a final action or a Notice of Allowance (where there has been no prior final action), and is accompanied by one of the certifications pursuant to 37 C.F.R. §1.97(e) set forth in paragraph 9 below.
6. ☐ A fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. §1.97(c), after the period specified in paragraph 4 above but before the mailing date of a final action or a notice of allowance (where there has been no prior final action):
- ☐ A check in the amount of \$180.00 is enclosed in payment of the fee.
  - ☐ Charge the fee to Deposit Account No. 13-4500, Order No. \_\_\_\_\_.  
A DUPLICATE COPY OF THIS SHEET IS ATTACHED.
7. ☐ A fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. §1.97(d), after the mailing date of a final action or a notice of allowance, whichever comes first, but before payment of the issue fee, and is accompanied by:
- a. one of the certifications pursuant to 37 C.F.R. §1.97(e) set forth in paragraph 9 below; and
  - b. the fee due under 37 C.F.R. §1.17(p) which is paid as set forth in paragraph 11 below.
8. ☐ A fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in compliance with:
- a. ☐ 37 C.F.R. §1.313(b)(3) or §1.313(c)(1), after the issue fee has been paid and information cited in this Information Disclosure Statement may render at least one claim unpatentable and is accompanied by the attached Petition To Withdraw Application From Issue and fee pursuant to 37 C.F.R. §1.17(h);

- b. ☐ 37 C.F.R. §1.313(c)(2) or §1.313(c)(3), after the issue fee has been paid and information cited in this Information Disclosure Statement is to be considered in a Request for Continued Examination (RCE) or a Continuation application upon abandonment of the instant application and is accompanied by the attached Petition To Withdraw Application From Issue and fee pursuant to 37 C.F.R. §1.17(h).
- c. ☐ The fees due under 37 C.F.R. §§1.17(h) and 1.17(p) are paid as set forth in paragraph 11 below.
9. ☐ I hereby certify that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.
- ☐ I hereby certify that no item of information in the Information Disclosure Statement filed herewith was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of this Information Disclosure Statement.
10. ☐ This document is accompanied by ☐ a Search Report ☐ Communication which was cited in a corresponding ☐ PCT or ☐ Foreign counterpart application
11. ☐ A check in the amount of \$\_\_\_\_\_ is enclosed in payment of the fees due under 37 C.F.R. §§1.17(h) and 1.17(p).
- ☐ Charge the fees due under 37 C.F.R. §§1.17(h) and 1.17(p) to Deposit Account No. 13-4500, Order No. 4024-4008. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.
- ☒ **The Commissioner is hereby authorized to charge any additional fees which may be required for this Information Disclosure Statement, or credit any overpayment to Deposit Account No. 13-4500, Order No. 4024-4008. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.**

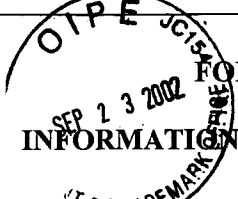
Respectfully submitted,  
MORGAN & FINNEGAN, L.L.P.

Dated: September 18, 2002

By:

  
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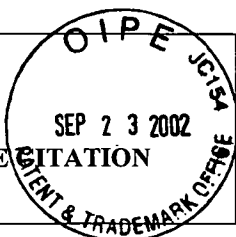
 <b>FORM PTO-1449</b> <b>INFORMATION DISCLOSURE CITATION</b>	<b>Attorney Docket:</b> 4024-4008	<b>Serial No.:</b> 09/896,797
	<b>Applicant:</b> John Trezza	
	<b>Filing Date:</b> June 29, 2001	<b>Group Art Unit:</b> 2872

## U.S. PATENT DOCUMENTS

Examiner Initial	Patent Number	Publication Date	Name	Class	Sub-Class	Filing Date
	4,533,833		Copeland et al.			August 6, 1985
	5,266,794		Olbright et al.			November 30, 1993
	5,269,453		Melton et al.			December 14, 1993
	5,385,632		Goossen	<b>RECEIVED</b> <b>SEP 30 2002</b> <b>Technology Center 2600</b>		January 31, 1995
	5,477,933		Nguyen			December 26, 1995
	5,793,789		Ben-Michael et al.			April 11, 1998
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	6,005,262		Cunningham			December 21, 1999
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	6,253,986		Brofman			July 3, 2001
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	6,340,113		Avery et al.			January 22, 2002
	6,343,171		Yoshimura et al.			January 29, 2002
	Pub. No. US2001 /00207939		Honda			September 13, 2001
	Pub. No. US2001 0038103		Nitta et al			November 8, 2001

<b>Examiner</b>	<b>Date Considered</b>
<b>EXAMINER:</b> Initial if reference considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.	

<b>FORM PTO-1449</b>  <b>INFORMATION DISCLOSURE CITATION</b>	<b>Attorney Docket:</b> 4024-4008	<b>Serial No.:</b> 09/896,797
	<b>Applicant:</b> John Trezza	
	<b>Filing Date:</b> June 29, 2001	<b>Group Art Unit:</b> 2872



Pub. No. US2001 0081773	Inoue et al.	<b>RECEIVED</b> SEP 30 2002	June 27, 2002
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### FOREIGN PATENT DOCUMENTS Technology Center 2600

Examiner Initial	Patent Number	Publication Date	Country	Class	Sub-Class	Translation
						<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Yes <input type="checkbox"/> No

### OTHER DOCUMENTS (continued)

	Ahadian, J.F., et al., "Practical OEIC's Based on the Monolithic Integration of GaAs-InGap LED's with Commercial GaAs VLSI Electronics", IEEE Journal of Quantum Electronics, Vol. 34, No. 7, pages 1117-1123, July 1998.
	Alduino, A.C. et al., "Quasi-Planar Monolithic Integration of High-Speed VCSEL and Resonant Enhanced Photodetector Arrays", IEEE Photonics Technology Letters, Vol. 11, No. 5, pages 512-514, May 1999.
	<del>Anderson, B., "Rapid Processing And Properties Evaluation Of Flip-Chip Underfills", Dexter Electronic Materials, 9 pages.</del>
	Corbett, B. et al., "Resonant Cavity Light Emitting Diode and Detector Using Epitaxial Liftoff", IEEE, Vol. 5, No. 9, pages 1041-1043, September 1993.
	Geib, K.M. et al., "Monolithically Integrated VCSELs and Photodetectors for Microsystem Applications", IEEE, pages 27-28, 1998.
	Goodman, J. et al., "Optical Interconnections for VLSI Systems", Proceedings of the IEEE, Vol. 72, No. 7, pages 850-865, July 1984.
	Goossen, K. W. et al., "GaAs 850 nm Modulators Solder-Bonded to Silicon", IEEE Photonics Technology Letters, Vol. 5, No. 7, July 1993.
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	Lesser, M.P. et al., "Bump Bonded Back Illuminated CCDs", SPIE, Vol. 1656, pages 508-516, 1992.

<b>FORM PTO-1449</b> <b>INFORMATION DISCLOSURE CITATION</b>	<b>Attorney Docket:</b> 4024-4008	<b>Serial No.:</b> 09/896,797
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	<b>Filing Date:</b> June 29, 2001	<b>Group Art Unit:</b> 2872

**OTHER DOCUMENTS (continued)**

	McLaren T. et al., "Assembly of VCSEL Based Smart Pixel Arrays", IEEE/LEOS Summer Topical Meeting: Smart Pixels, pages 49 and 50, August 1996.
	Nakahara, T., et al., "Hybrid Integration of Smart Pixels by Using Polyimide Bonding: Demonstration of a GaAs p-i-n Photodiode/CMOS Receiver", IEEE Journal Of Selected Topics In Quantum Electronics, pages 209-216, 1999.
	Ohsaki, T., "Electronic Packaging in the 1990's -A Perspective From Asia", IEEE Transactions On Components, Hybrids, And Manufacturing Technology, Vol. 14, No. 2, pages 254-261, June 1991.
	Pommerrenig, D.H. et al., "Hybrid silicon focal plane development: an update", SPIE, Vol. 267, pages 23-30, 1981.
	Pu, R. et al., "Comparison of Techniques for Bonding VCSELs Directly to ICs", SPIE Vol. 3490, pages 498-501, June 2005.
	Pu, R. et al., "Hybrid Integration of VCSELs to Foundry Fabricated Smart Pixels", IEEE/LEOS Spring Meetings, pages 25 and 26, 1997.
	<del>Sasaki, I. et al., "Self-aligned Assembly Technology for Optical Devices Using AuSn Solder Bumps Flip-Chip Bonding", pages 260-261.</del>
Examiner	Date Considered
/Agustin Bello/ (06/30/2010)	
EXAMINER:	Initial if reference considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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